

REMARKS

Claim 13 has been canceled. Claims 1-12 remain pending in this application. Applicant amends claims 1, 4-5, and 12 for clarification. No new matter has been added.

Applicant acknowledges with appreciation the Examiner's allowance of claims 8-11, and submits that the provided reasons for allowance include only the Examiner's interpretation, which should in no way limit the scope of the allowed claims.

Claims 5 and 6 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Applicant amends claim 5 to clarify the claim language to recite, in part,

"integrating a first bearer service, in which delays A ($0 \leq A \leq T$) and A' ($= 2T - A$) are associated, with a second bearer service, in which delays B ($0 \leq B \leq T$) and B' ($= 2T - B$) are allocated between the sending side and the receiving side, into a wireless channel C , in which delays $T + C$ ($0 \leq C \leq T$) and C' ($= T - C$) are allocated." (Emphasis added)

Applicant respectfully submits that claim 5, as amended, leaves no ambiguity on its interpretation, and requests that the Examiner withdraw the § 112, ¶ 2 rejection.

Claims 1-5 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art ("AAPA") in view of U.S. Patent No. 5,430,774 to Dupuy; and claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Dupuy in further view of U.S. Patent No. 5,559,796 to Edem et al. Applicant amends independent claims 1 and 4 in a good faith effort to further clarify the claimed invention as distinguished from the applied references, and respectfully traverse the rejection.

The Examiner maintained his rejection because independent claims 1 and 4 encompass two scenarios, $A=0$ and $A=T$, where delay is not added in both the sending and receiving sides. The Examiner asserted that Dupuy renders obvious adding delay at the receiver, namely $A=0$.

Page 2, lines 16-21 of the Office Action. The Examiner further asserted that the claims must require adding delay to both the sending side and the receiving side in order to overcome the prior art rejection. Page 3, lines 1-2 of the Office Action. Applicant amends claim 1 to recite, in part,

“delaying each bearer frame of said bearer service by one frame period by allocating delays A ($0 < A < T$) and $A' (= T - A)$ between the sending side and a receiving side wherein the delay A is allocated in the sending side as a frame offset and the delay A' is allocated in the receiving side;

...
integrating said bearer service into a wireless channel with another bearer service in which delays B ($A < B < T$) and $B' (= T - B)$ are allocated between the sending side and the receiving side wherein the delay B is allocated in the sending side as a frame offset and the delay B' is allocated in the receiving side.”
(Emphasis added)

And Applicant amends claim 4 to incorporate features corresponding to those of claim 1 cited above. Thus, claims 1 and 4 recite the feature of allocating delays in both the sending side and the receiving side. Accordingly, Applicant respectfully submits that claims 1 and 4, together with claims 2-3, 5, and 7 dependent therefrom, respectively, are patentable over the cited references for at least the above-stated reasons. The Examiner relied upon Edem et al. to specifically address the additional features recited in claim 6. Therefore, Edem et al. would not cure the above deficiency of AAPA and Dupuy with respect to claims 1 and 4, even assuming, arguendo, that the combination of these references would have been obvious to one skilled in the art. Applicant, accordingly, submits that claim 6 is patentable over the cited references for at least the above-stated reasons.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Edem et al. Applicant respectfully traverses the rejection.

The Examiner maintained this rejection by asserting that the delay of "each packet" disclosed in Edem et al. may be combined with the bearer system disclosed in AAPA to suggest "synchronizing frames...while maintaining the original frame timing." Page 3, lines 7-13 of the Office Action.

In responding to the Examiner's "Response to Arguments," Applicant respectfully submits that Applicant did not argue against Edem et al. individually, rather that Edem et al. contribute to the combination of references in a manner such that the combination of AAPA and Edem et al., even if obvious to one skilled in the art, would still fail to teach or suggest the claimed invention. Indeed, the Examiner acknowledged that AAPA does not disclose the features of the claimed "send delay adding part" and "receive delay adding part" and relied upon Edem et al. as a combining reference that allegedly discloses these features. Page 11, line 14 to page 13, line 4 of the Office Action. Applicant simply responded by pointing out that Edem et al. fail to disclose these features as claimed so that the combination of AAPA and Edem et al. would fail to disclose or suggest the claimed invention, even assuming such a combination would have been obvious to one skilled in the art.

Again, the cited portions of Edem et al. appear to describe a technique for eliminating variable delays resulting from transmitting data over a data network by sending delay information from a transmitter to a receiver of a data transmission, where the receiver reconstructs the relative timing of data packets to simulate their relative timing before transmission, and thus eliminating the variable delays resulting from transmission. (please see also Figs. 6, 8, 12A-E and their corresponding description in Edem et al.) As shown in Figs. 12A-E of Edem et al., the technique disclosed therein appears to merely address removing variable delays between data packets on a data stream. As such, Edem et al., as relied upon by

the Examiner, merely describe a technique that would nevertheless result in timings that are illustrated in Fig. 5 of the application. As shown in Fig. 5, the relative timing for bearer services A and B are the same before and after transmission. Fig. 5 illustrates a problem solved by the claimed invention, which is the instantaneous interruption between a frame input before a bearer integration and a frame input after bearer integration.

Therefore, even assuming, arguendo, that it would have been obvious to one skilled in the art to combine AAPA with Edem et al., such a combination would at most yield a system that adds delays to simulate relative timing and remove variable delays. The combination would, therefore, still fail to disclose or suggest,

“a send delay adding part which synchronizes with reference frame timing, delays each bearer frame of one or more bearer services input before bearer integration timing up to each frame offset timing, and delays each bearer frame of the one or more bearer services input after bearer integration timing up to frame offset timing of a channel for bearer integration; and
a bearer data multiplexing part which time-division multiplexes bearer frames of the one or more bearer service output from said send delay adding part, wherein the bearer frames that are multiplexed are transmitted via a wireless channel;
a bearer data separation part which time-division demultiplexes the bearer frame of the one or more bearer services that are multiplexed received via the wireless channel; and
a receive delay adding part which delays each bearer frame of the one or more bearer services input before bearer integration timing up to reference frame timing, and delays each bearer frame of the one or more bearer services output from said bearer data separation part after bearer integration timing up to reference frame timing,” as recited in claim 12. (Emphasis added)

As illustrated in Fig. 7 of the application, the claimed invention advantageously provides for eliminating frame interruptions between a frame input before bearer integration and a frame input after bearer integration—e.g., between frame a-4, which is a frame input before bearer integration, and a-5, which is a frame input after bearer integration, in Fig. 7.

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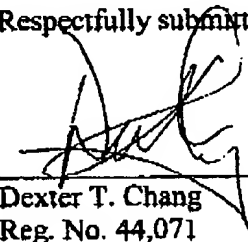
Applicant, accordingly, submits that claim 12 is patentable over the cited references for at least the above-stated reasons.

The above statements on the disclosure in the cited references represent the present opinions of the undersigned attorney. The Examiner is respectfully requested to specifically indicate those portions of the respective reference that provide the basis for a view contrary to any of the above-stated opinions.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



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